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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,792	06/06/2001	Natarajan Mani	GEN-0262	1726
23413	7590	03/30/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			BENENSON, BORIS	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/681,792	Applicant(s) MANI ET AL.	
	Examiner Boris Benenson	Art Unit 2836	<i>JB</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/06/2001.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 27-39 is/are allowed.
 6) ☒ Claim(s) 1, 11-13, 20 and 24 is/are rejected.
 7) ☒ Claim(s) 2-10, 14-19, 21-23, 25 and 26 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/24/01</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Baumgartner et al. (4,703,251). The language "for a" is intended use and does not further limit the positively recited claim limitations. MPEP 2106 II C

The subject matter of a properly construed claim is defined by the terms that limit its scope. It is this subject matter that must be examined. As a general matter, the grammar and intended meaning of terms used in a claim will dictate whether the language limits the claim scope. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim:

- (A) statements of intended use or field of use,
- (B) "adapted to" or "adapted for" clauses,
- (C) "wherein" clauses, or

Art Unit: 2836

(D) "whereby" clauses.

This list of examples is not intended to be exhaustive.

Based on that "... for a mechanically held contactor, the contactor changeable in state from ON to OFF or from OFF to ON, the circuit comprising:" is not given a patentable weight and only limitation following are considered.

Baumgartner et al. disclose a modulator (Fig. 9C) that has a clock signal generator (209). That reads on the switch for providing an input signal. A controller, the rest of the circuit, that receives the input signal and produces an output signal (207). A timing mechanism for setting a first period of time after receipt of the input signal (212c) and for setting a second period of time (208) that limits the output duration, where the output is not delivered until the first period of time is completed (the clock signal takes a discrete amount of time to propagate through the delay).

2. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Kaufman 111 et al. (4,514,677). Kaufman et al. disclose a Two Stage Electrical Braking For A Variable Speed AC Induction Motor. Disclosed system includes a contactor changeable in state from ON to OFF and From OFF to ON. The contactor includes several pairs of separable contacts (20,22,34,38,32,36,42 and 44), two energizable coils (24 and 46) that are responsible for separating and bringing together pairs of contacts. It is inherent that some mechanical assembly control position of the contacts

Art Unit: 2836

in response to energization and de-energization of the coils. An electronic circuit adjacent to the coils includes a timing mechanism (48,50,52 and 54) for setting a predetermine time period for energization of the coil (46).

3. Claims 11-12 rejected under 35 U.S.C. 102(b) as being anticipated by Briedis et al. (5,510,951). Briedis et al. disclose an electronic control for 3-wire dc coils. The system comprises a contactor (Fig.1, Pos. 10) with a pair of separable contacts (13, 15), an assembly for separating and bringing together the pair of separable contacts (14, 9), an energizable coils (11, 12) for moving the assembly in response to energization and de-energization of the coils and an electronic circuit mounted adjacent to the coils (7, 16) that includes a timing mechanism for setting a time period, predetermined by capacitor C1 and resistor R1, for energization of the coils.

Referring to Claim 12, Controller (7), responsible for is sending output signal (Pin 26) for energizing the coil (11).

4. Claims 11-13, 20 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Newell et al. (4,042,966). Newell et al. disclose a motor control circuit that includes a contactor comprising two coils (Fig.1, Pos.

Art Unit: 2836

60, 70) with two assemblies of separable contacts (62, 72). The assemblies are moving upon energizing or de-energizing their coils. An electronic control circuit (Fig.2) is located in separate housing (Fig.1, Pos 12) adjacent to the coils.

Referring to Claims 12, 13 and 20, the motor control circuit includes a time delay circuit (Fig. 2a, Pos 78) that provides an output signal (pin 30) for energizing coil (62). "Following a time delay supplied by the time delay circuit 78, the transistor 222 will be driven into conduction thereby energizing the main relay coil 102 closing the main relay contacts 99 turning on the triac 84 to energize the main contactor winding 60 closing the set of contacts 62 to provide running motor current to the motor 10" (Col.5, Lines 61-67). The time delay circuit is responsive to an input signal and sets a delay read on sleep period. During that period a "start-up relay contactor winding 70 controls the operation of a set of three power relay contacts 72 which serve to connect the start-up windings of the motor 10 to the three phase source of AC power 64" (Col.2, Lines 36-39). Upon receiving the output signal (pin 30) contactor changes its state by opening start-up contacts (72) and closing running contacts (62).

Referring to Claim 24, an electronic control circuit (Fig.2) is located in separate housing (Fig.1, Pos 12).

Allowable Subject Matter

5. Claims 27-36 are allowed.
6. Claims 2, 5, 6, 7, 14, 17 and 21 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an Examiner's statement of reasons of allowance.

7. Independent Claim 27 is allowable because none of the prior art of record disclose an electronic circuit for a mechanically held contactor or a method for utilizing an electronic circuit in a mechanically held contactor where a timing mechanism within the controller is setting a first period of time after receipt of an input signal and setting a second period of time for limiting duration of an output signal in combination with the other claim limitations.
8. Claim 2 would be allowable because none of the prior art of record disclose the controller which setting a first period of time after receipt of an input signal and setting a second period of time for limiting duration of an output

Art Unit: 2836

signal and include an opto-coupler for passing that output signal from the controller with the other claim limitations.

9. Claim 5 would be allowable because none of the prior art of record disclose the controller which setting a first period of time after receipt of an input signal and setting a second period of time for limiting duration of an output signal and that output signal causing a contactor to change its state with the other claim limitations.

10. Claim 6 would be allowable because none of the prior art of record disclose the controller which setting a first period of time after receipt of an input signal and setting a second period of time for limiting duration of an output signal and a registry within the controller for setting a duration of the first time period with the other claim limitations.

11. Claim 7 would be allowable because none of the prior art of record disclose the controller which setting a first period of time after receipt of an input signal and setting a second period of time for limiting duration of an output signal and wherein the controller checks status of an auxiliary contact with the other claim limitations.

Art Unit: 2836

12. Claim 14 would be allowable because none of the prior art of record disclose an assembly for separating and bringing together a pair of separable contacts comprising a magnet and a main cam in combination with the other claim limitations.

13. Claim 17 would be allowable because none of the prior art of record disclose a contactor where a controller responsible for timing mechanism comprises an opto-coupler for passing the output signal in combination with the other claim limitations.

14. Claim 21 would be allowable because none of the prior art of record disclose a contactor wherein a controller checks status of an auxiliary contact block during the sleep period in combination with the other claim limitations.

15. Claims 25-26 are allowable because of the prior art of record disclose a contactor wherein a housing of an electronic circuit is mounted upon a coil cover covering the coil or includes a cutout allowing manual access to an assembly for separating and bringing together a pair of separable contacts in combination with the other claim limitations.

Art Unit: 2836

16. Claims 3-4, 8-10, 15-16, 18-19, 22 and 23 are dependent on Claims 2, 5-7, 14,17 and 21 and would be allowable if on Claims 2, 5-7, 14,17 and 21 become allowable.

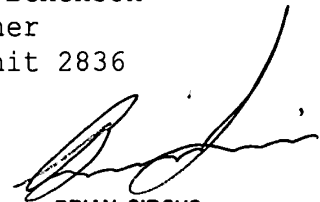
Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Benenson whose telephone number is (571) 272-2048. The examiner can normally be reached on M-F (8:20-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Boris Benenson
Examiner
Art Unit 2836



**BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
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